AMENDMENTS TO THE SPECIFICATION

In the specification, page 3, last paragraph, please amend as follows:

In general, dyes are removed once again prior to a mass-spectrometric measurement, prior to an enzymic digestion or prior to blotting, something which can in turn give rise to changes in the separated substances. Glycosylated proteins are particularly sensitive in this connection and can frequently not be detected. Furthermore, the additional procedural steps are time-consuming and give rise to chemical waste which has to be disposed of. In order to circumvent uncertainties, which are caused in this way, in connection with a measurement, use is frequently made of ~~from two~~ 2 to 4 gel plates, with 2 being used as measurement plates and 2 being used as reference plates, with the aim of isolating the substances, for subsequent measurements, from the reference plates. This high consumption of materials is found to be a particular disadvantage.

In the specification, page 4, second paragraph, please amend as follows:

Thus far, there has been no disclosure of any method for directly determining substances, which can be separated electrophoretically by means of 1D or 2D flat-bed electrophoresis (abbreviated as PAGE when using polyacrylamide gels), without any pretreatment or modification of the substances, in particular when determining and visualizing proteins in acrylamide gels or other solid gels (which are usually crosslinked). Such a method is extremely desirable in order to avoid the ~~abovementioned~~ above-mentioned disadvantages, for example low sensitivity, fixing, destaining, labelling, different strengths of the staining in the case of different substances (proteins), and alteration of the substances (proteins) as a result of covalently bonded dye.

In the specification, page 9, penultimate paragraph, please amend as follows:

The invention also relates to a method for determining substances which are separated by means of 1D or 2D flat-bed electrophoresis, in which method unseparated and separated substances are irradiated, in the separation medium for electrophoretic separations, with a light source and

emitted fluorescence light is measured using a detector, characterized in that (a) by means of the action of UV light in the UV range, fluorescence-emitting substances (b) in the separation medium are irradiated directly with UV light of a wavelength of from 140 to 320 nm and (c) the UV fluorescence is measured at wavelengths ~~of~~ from 150 to 400 nm using a UV-sensitive detector. The method can also be employed for separation media in flat-bed chromatography in which it is possible to separate electrically charged or uncharged substances.